SEQUENCE LISTING

<110> Chiron Corporation
Kyoto University
Itoh, Nobuyuki
Kavanaugh, Michael W.

<120> HUMAN FGF-20 GENE AND GENE EXPRESSION PRODUCTS

<130> 60219-6/16770.001

<140> 09/692,945
<141> 2000-10-20

<160> 17

<170> FastSEQ for Windows Version 4.0

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<211> 648
<212> DNA
<213> Rattus norvegicus

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ggagacacag gtcgcaggta ttttgtagca cttaacaaag acgggactcc aagggacggt 540
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<210> 2
<211> 212
<212> PRT
<213> Rattus norvegicus

<400> 2
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Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Gly Glu
20 25 30
Arg Pro Pro Leu Leu Gly Glu Arg Arg Gly Ala Leu Glu Arg Gly Ala
35 40 45
Arg Gly Gly Pro Gly Ser Val Glu Leu Ala His Leu His Gly Ile Leu
50 55 60
Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
65 70 75 80
Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
85 90 95
Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
100 105 110

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Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Gly Lys Gly Glu Leu Tyr
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Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
    130                 135                 140
Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
145                 150                 155                 160
Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
                165                 170                 175
Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
            180                 185                 190
Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
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Val Tyr Thr Gly
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<212> DNA
<213> Homo sapiens

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atgaatgaca aaggagaact ctatggatca gagaaactta cttccgaatg catctttagg     420
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<213> Homo sapiens

a1 Cont

<400> 4

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            20                  25                  30
Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala
        35                  40                  45
Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu
    50                  55                  60
Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
65                  70                  75                  80
Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
                85                  90                  95
Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
            100                 105                 110
Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr
        115                 120                 125
Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
    130                 135                 140
Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
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145                 150                 155                 160
Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
                165                 170                 175
Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
            180                 185                 190
Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
        195                 200                 205
Met Tyr Thr
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<210> 5
<211> 14
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<220>
<223> Oligopeptides for raising antibodies

<400> 5
Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His
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<210> 6
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Oligopeptides for raising antibodies

<400> 6
Gln Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr
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a1 cont

<210> 7
<211> 10
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<213> Artificial Sequence

<220>
<223> Residues which can be incorporated into FGF-20 to allow myc monoclonal antibody-based affinity purification.

<400> 7
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<210> 8
<211> 5
<212> PRT
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<220>
<223> Preferred thrombin cleavage site.

<400> 8
Leu Val Pro Arg Gly

1 5

<210> 9
<211> 10
<212> PRT
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<220>
<223> Sequence which can be incorporated to allow for puficiation of FGF-20 because of its ablility to bind to paramagentic streptavidin beads.

<400> 9
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<210> 10
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus amino acid sequences used to create sense and anti-sense PCR primers.

<400> 10
Phe Glu Glu Asn Trp Tyr
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<210> 11
<211> 6
<212> PRT
<213> Artificial Sequence

a1 Cont

<220>
<223> Consensus amino acid sequences used to create sense and anti-sense PCR primers.

<400> 11
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<210> 12
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus amino acid sequences used to create sense and anti-sense PCR primers.

<400> 12
Glu Asn Trp Tyr Asn Thr
1 5

<210> 13
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> Consensus amino acid sequences used to create
sense and anti-sense PCR primers.

<400> 13
His Gln Lys Phe Thr His
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<210> 14
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<212> PRT
<213> Artificial Sequence

<220>
<223> E-tag

<400> 14
Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu Glu Pro Arg
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<210> 15
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<212> PRT
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<220>
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<400> 15
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a' cont

<210> 16
<211> 208
<212> PRT
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<400> 16
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20 25 30
Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
35 40 45
Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg
50 55 60
Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly
65 70 75 80
Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu
85 90 95
Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser
100 105 110
Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu
115 120 125
Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp
130 135 140

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Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg
145                 150                 155                 160
Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr
                165                 170                 175
Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val
            180                 185                 190
Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu Ser Gln Ser
        195                 200                 205
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<210> 17
<211> 207
<212> PRT
<213> Rattus norvegicus

<400> 17

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            20                  25                  30
Phe Leu Asn Glu Arg Leu Gly Gln Ile Glu Gly Lys Leu Gln Arg Gly
        35                  40                  45
Ser Pro Thr Asp Phe Ala His Leu Lys Gly Ile Leu Arg Arg Arg Gln
    50                  55                  60
Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly Thr
65                  70                  75                  80
Val His Gly Thr Arg His Asp His Ser Arg Phe Gly Ile Leu Glu Phe
                85                  90                  95
Ile Ser Leu Ala Val Gly Leu Ile Ser Ile Arg Gly Val Asp Ser Gly
            100                 105                 110
Leu Tyr Leu Gly Met Asn Glu Arg Gly Glu Leu Phe Gly Ser Lys Lys
        115                 120                 125
Leu Thr Arg Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr
    130                 135                 140
Asn Thr Tyr Ala Ser Thr Leu Tyr Lys His Ser Asp Ser Glu Arg Gln
145                 150                 155                 160
Tyr Tyr Val Ala Leu Asn Lys Asp Gly Ser Pro Arg Glu Gly Tyr Arg
                165                 170                 175
Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp
            180                 185                 190
Pro Ser Lys Leu Pro Ser Met Ser Arg Asp Leu Phe Arg Tyr Arg
        195                 200                 205
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